

LIST OF FIGURES

Figure	Page
1	
2 (a)	7
2 (b)	7
3	10
4 (a)	11
4 (b)	11
	13
	15
	15
8 (a)	20
	20

LIST OF FIGURES (cont'd)

Page

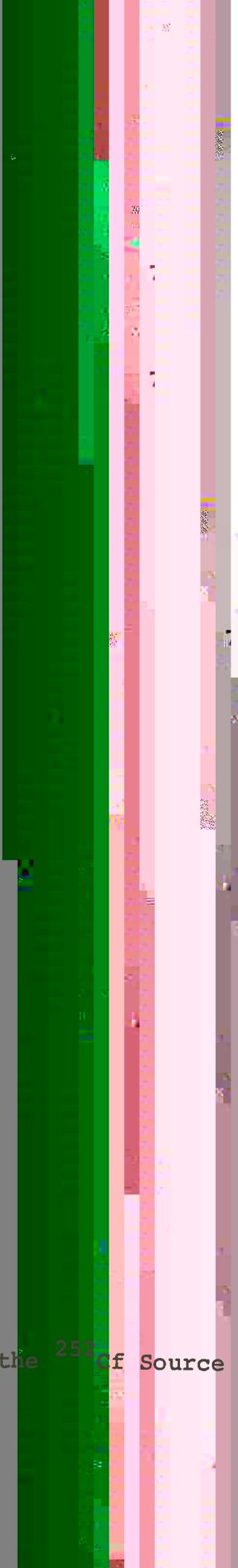
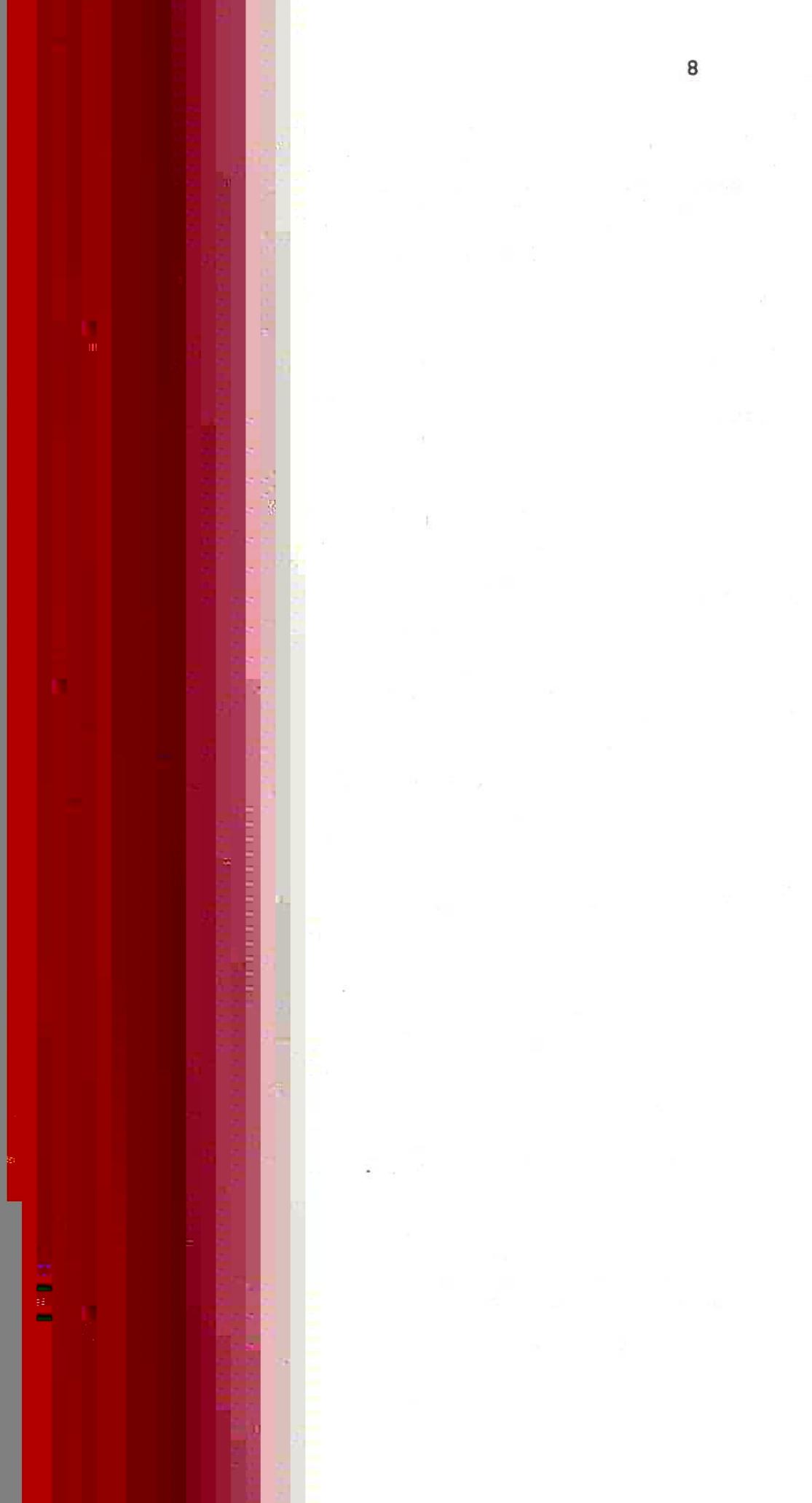
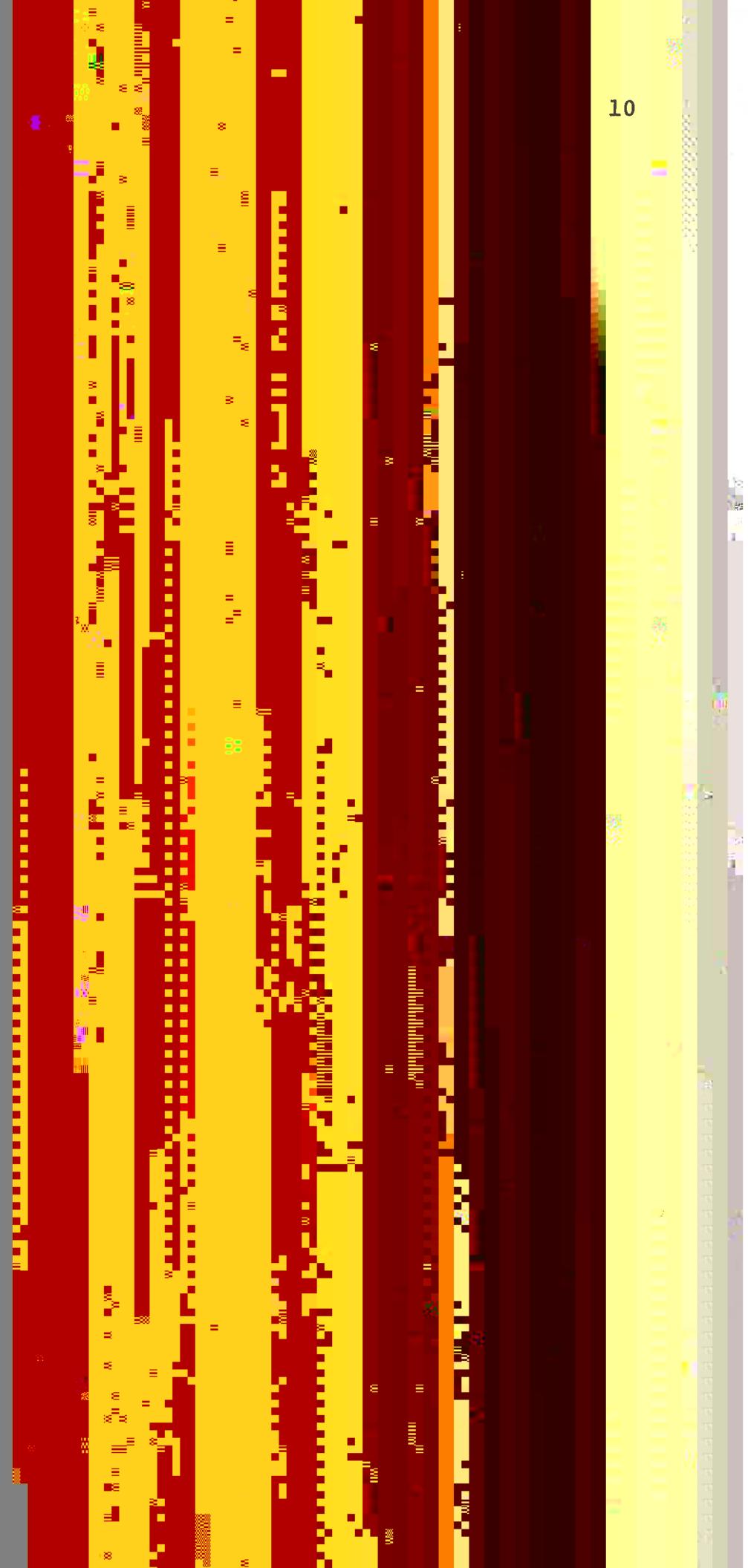
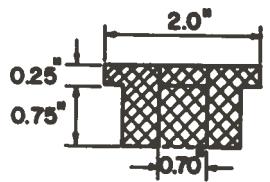


Figure 2(b). A Diagram of the ^{252}Cf Source Capsule







SOURCE TUBE HOLDER

DETAIL NO. 2

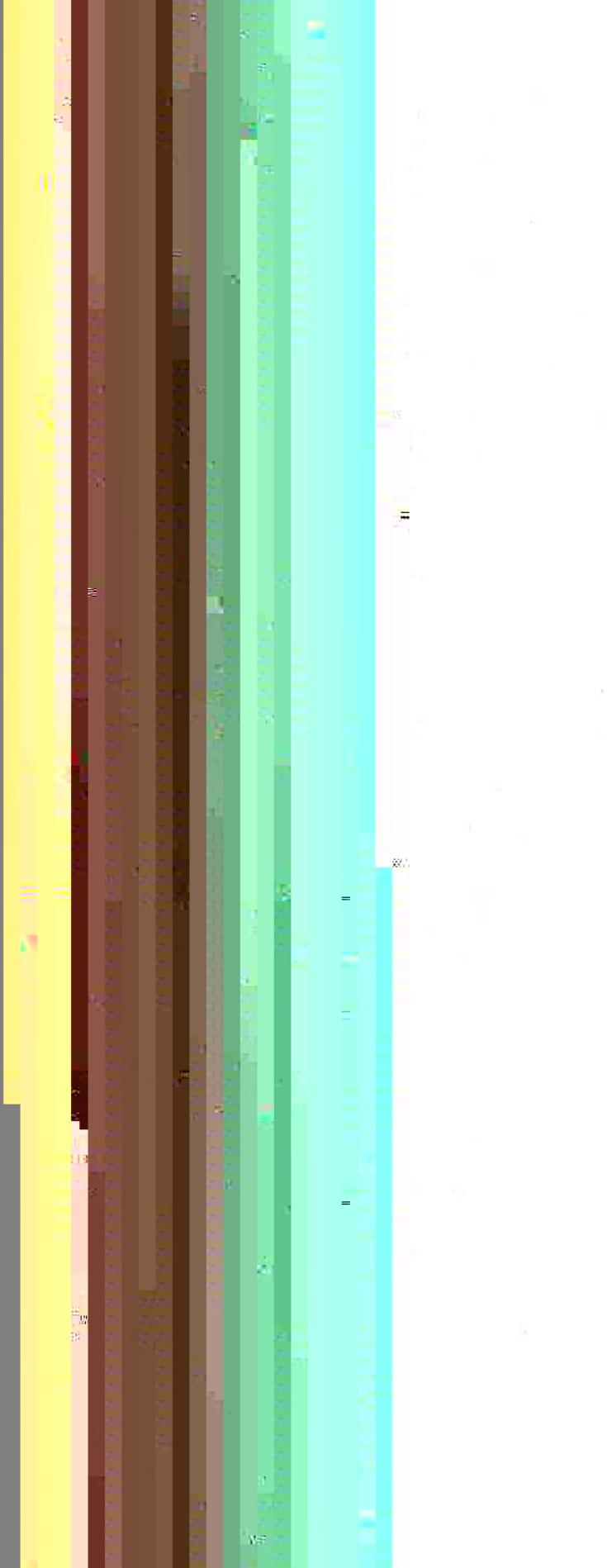




Figure 5. A Diagram of the Collimator in

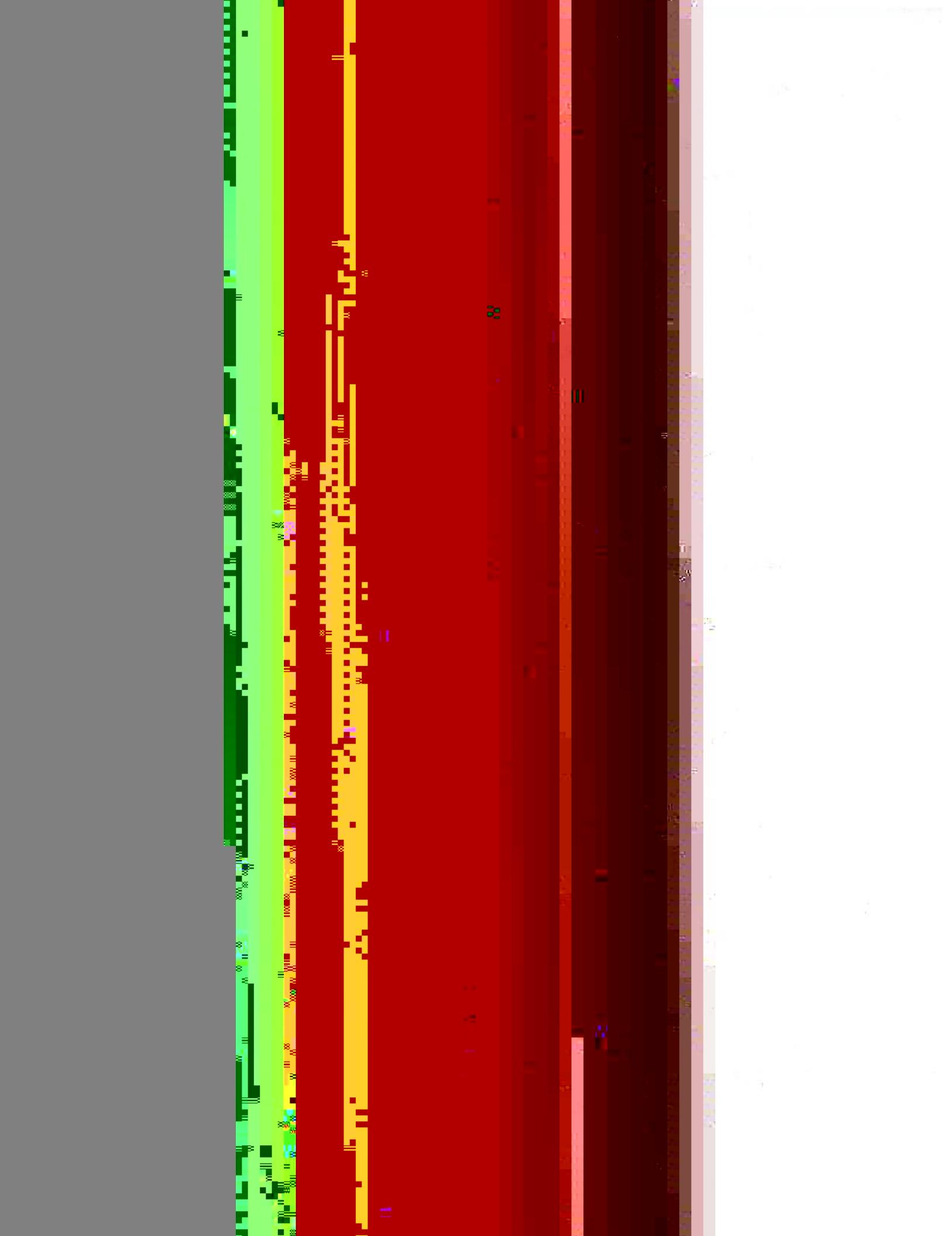
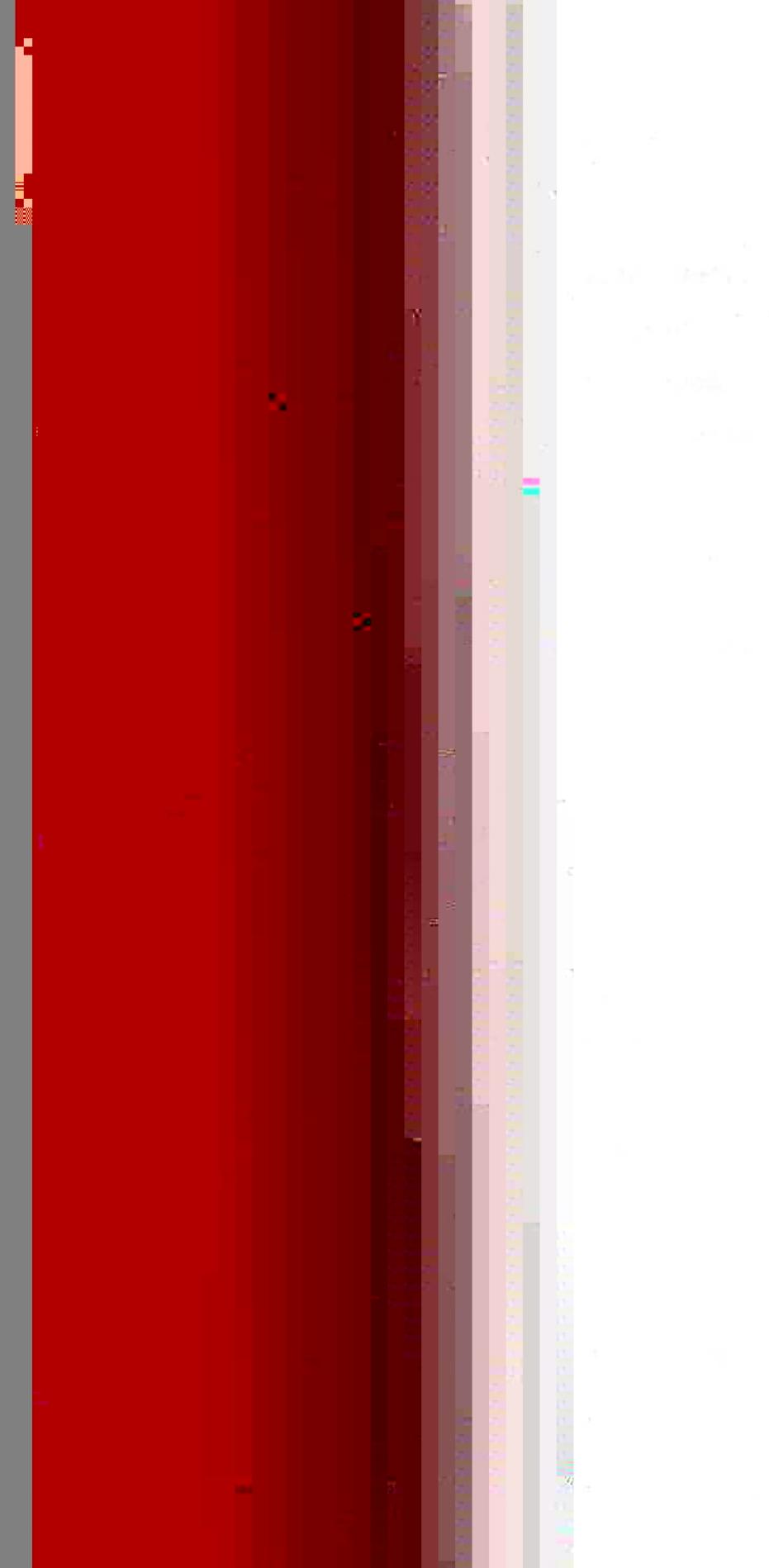
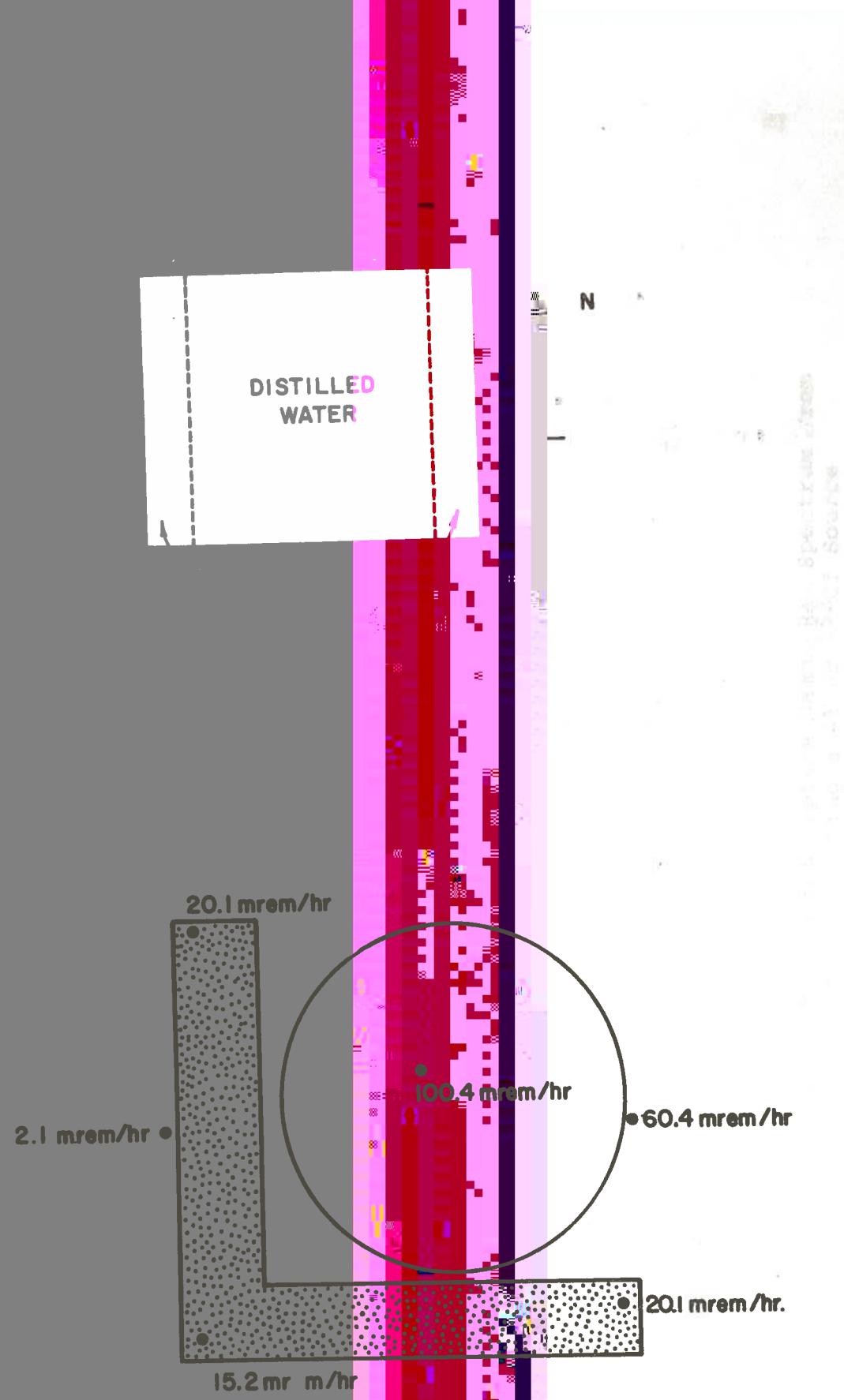


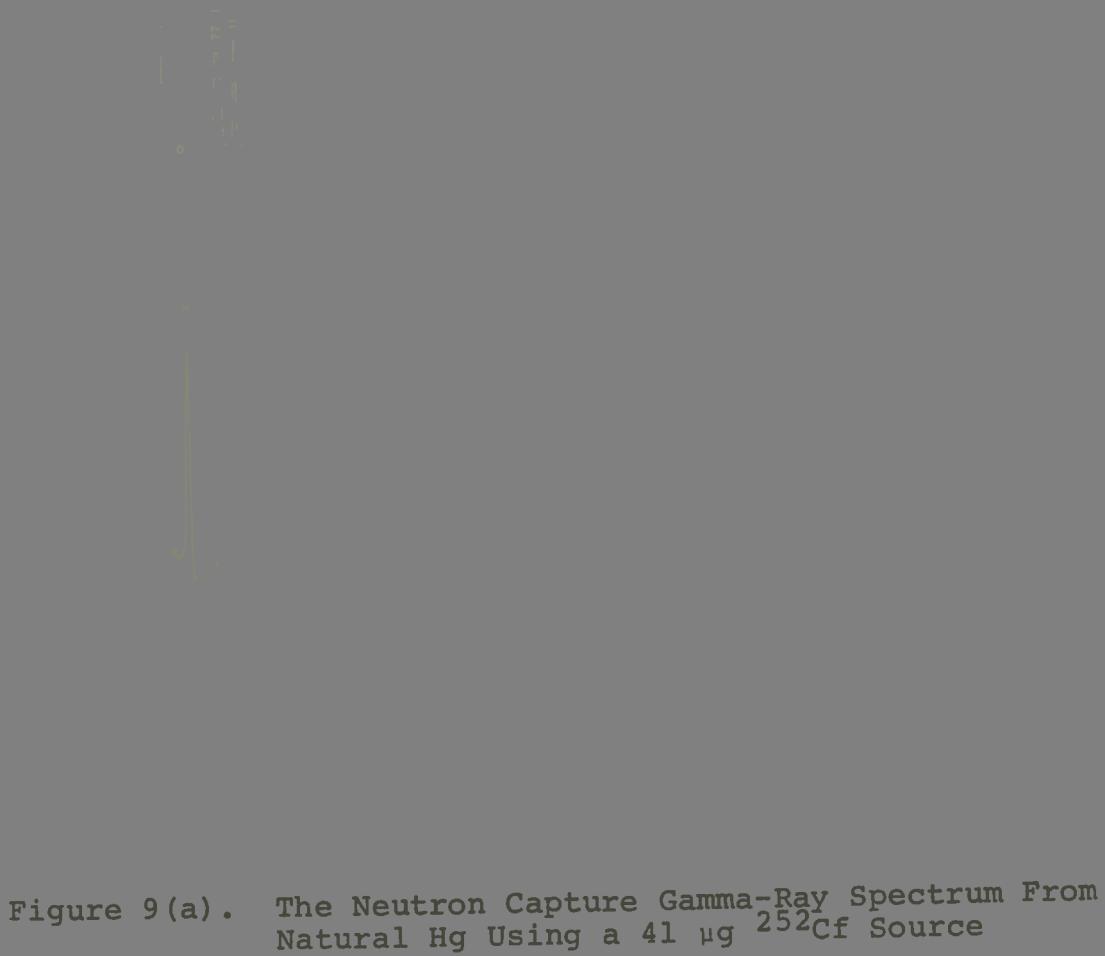
Figure 6. A Block Diagram of the Spectrometer System

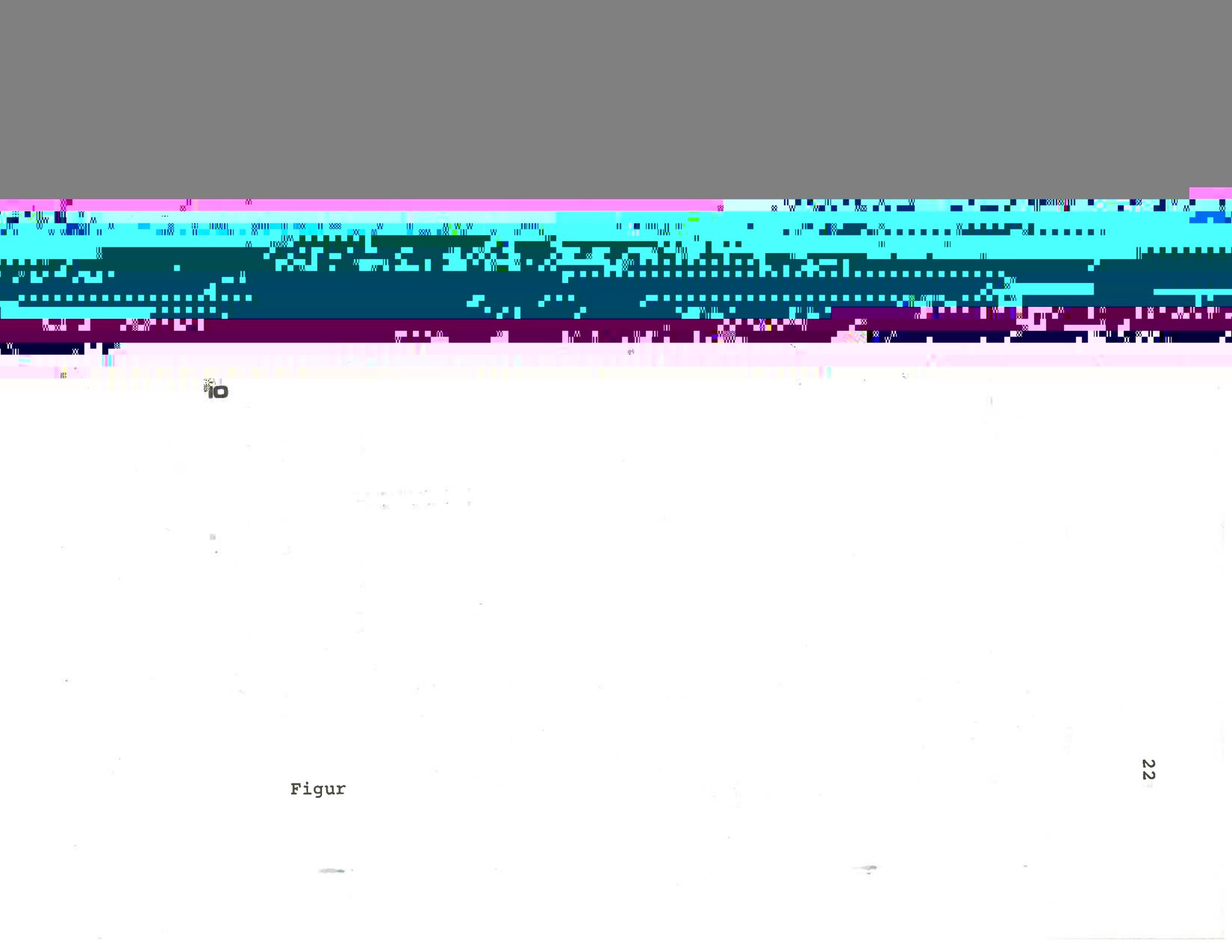
-ve

HOLE MOTION





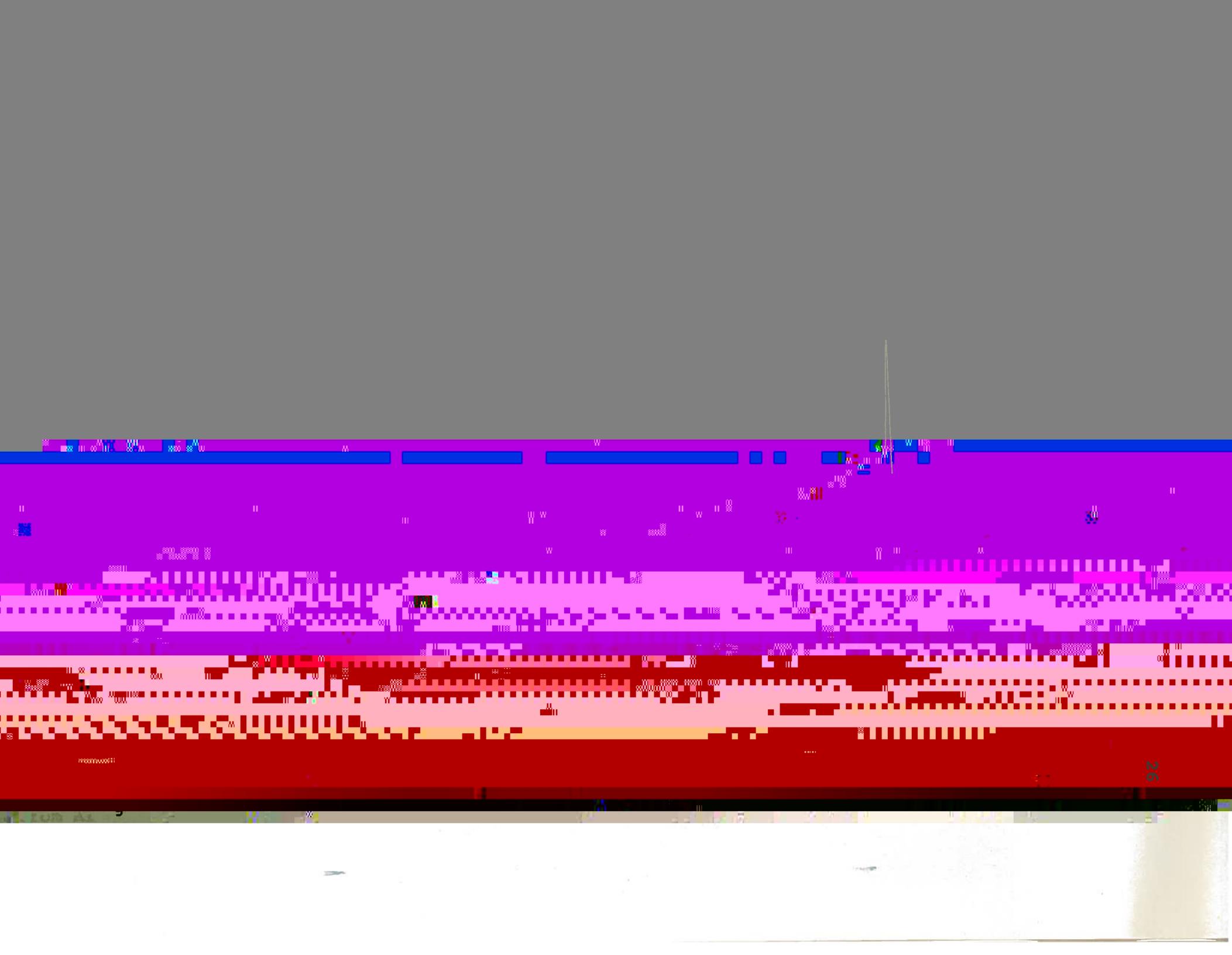




Figur

0+N 200+N
,

Figure 10(a). The Neutron Capture Gamma-Ray Spectrum From Natural Hg Using a 3.1 mg ^{252}Cf Source



10

10



Figure 13. The Energy Calibration Spectrum



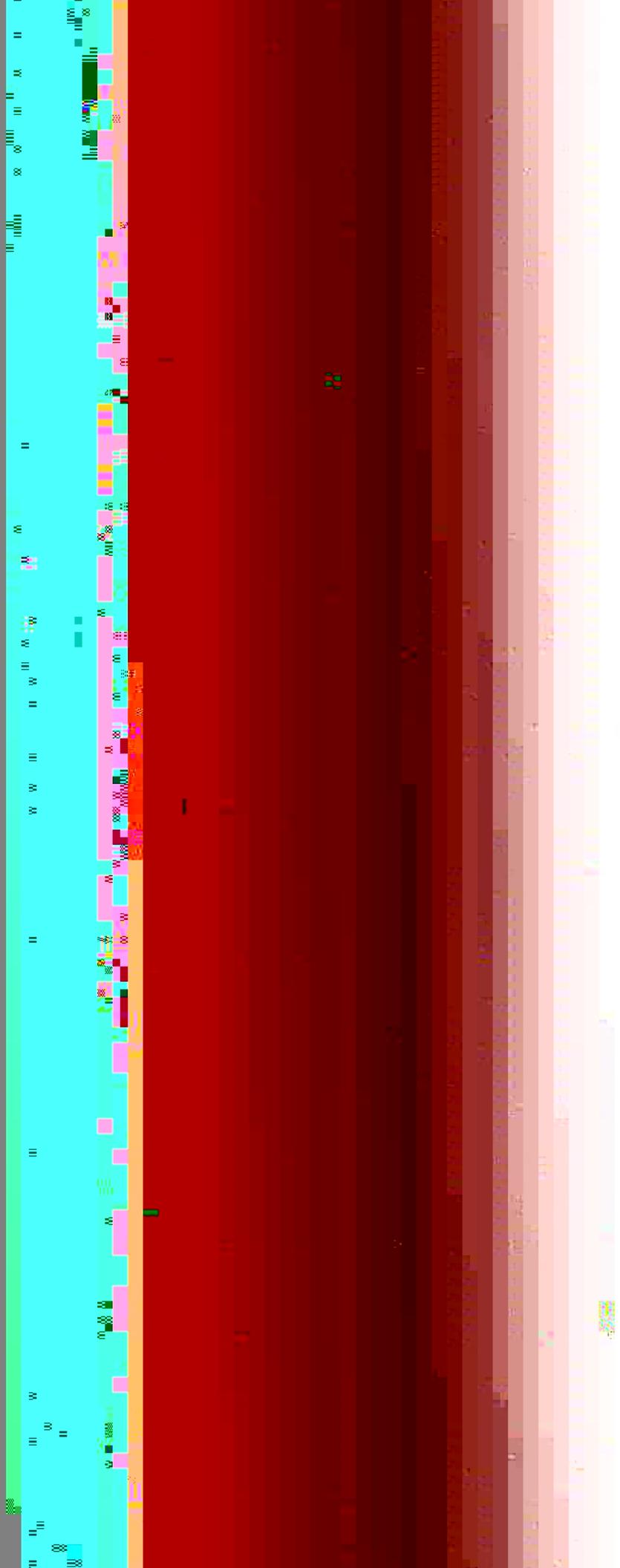
10

29

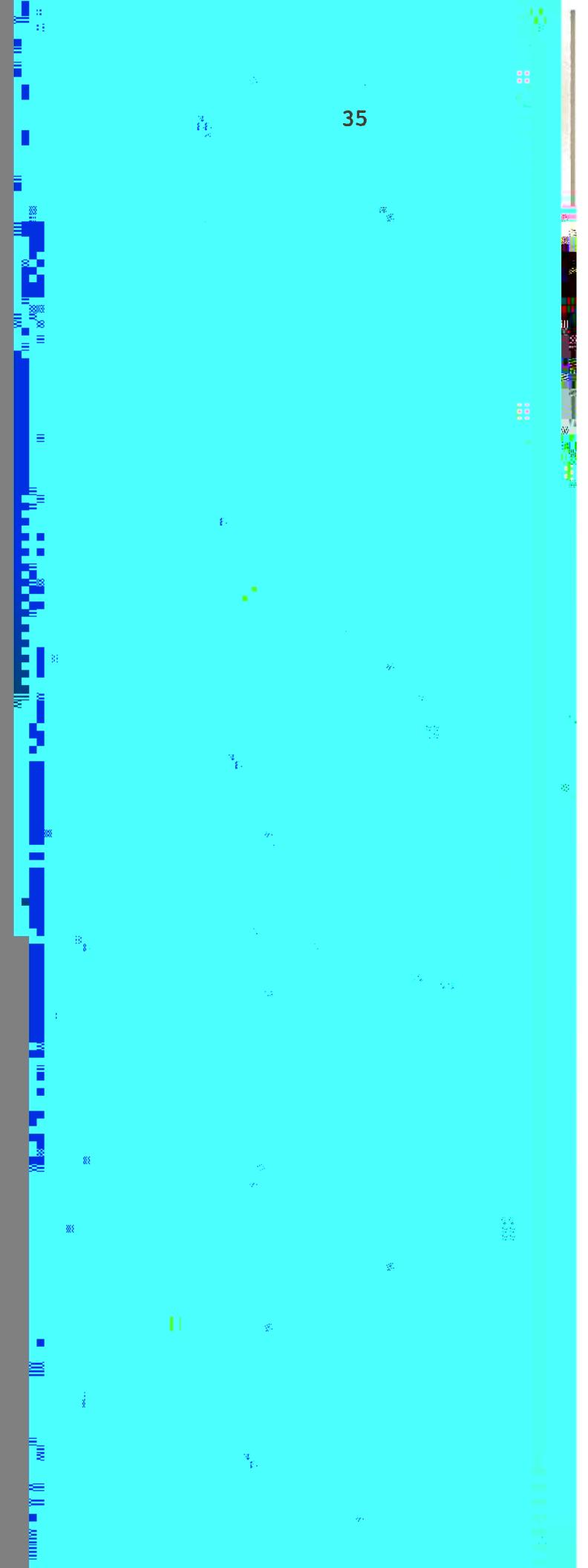
Figure

Figure 14(b). The Neutron Capture Gamma-Ray Spectrum from
 CCl_4 Using a 3.1 mg ^{252}Cf Source

$$\epsilon_R(E) = \xi t \epsilon_P(E) = \frac{A}{I} ,$$



$d_{\text{Double escape peak energy}}$



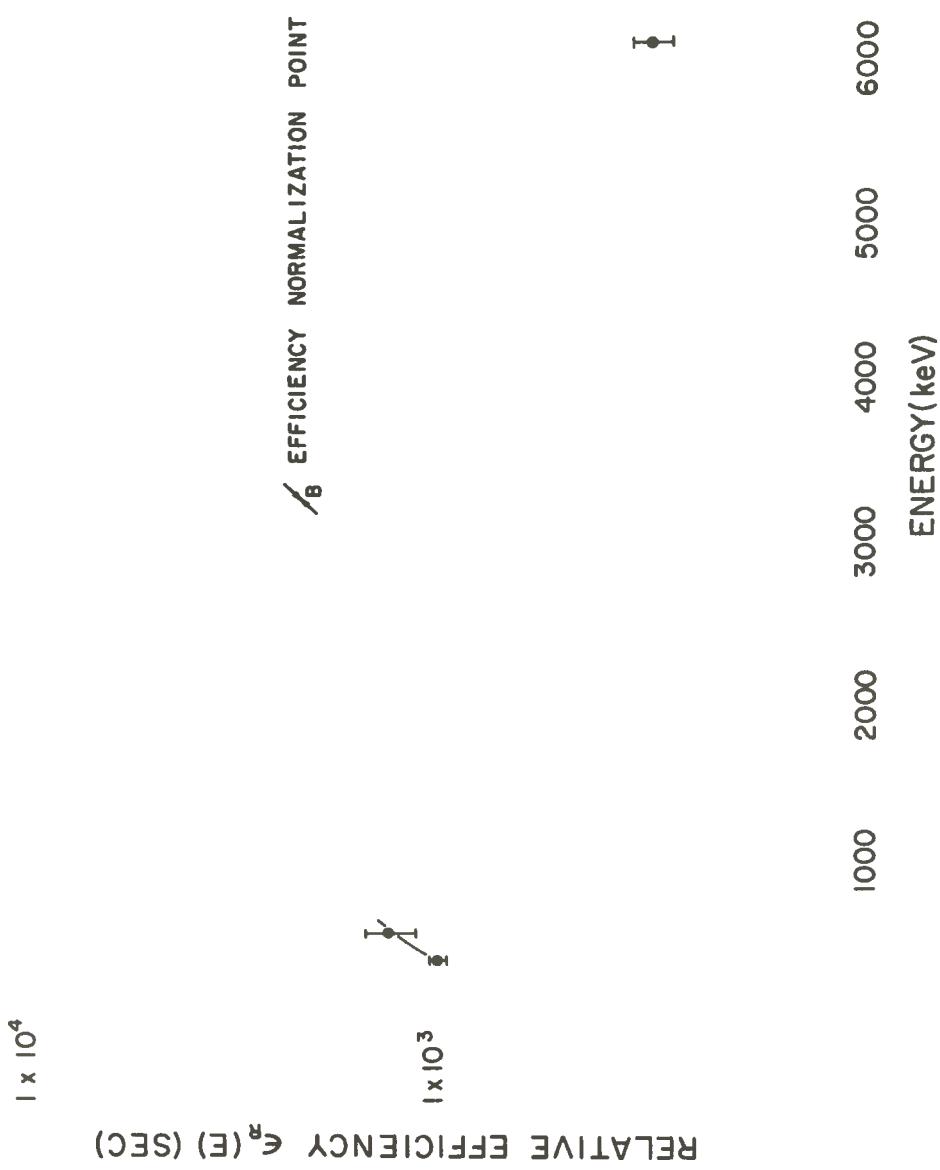


Figure 15. The Photopeak Efficiency Curve for the Detector System

and

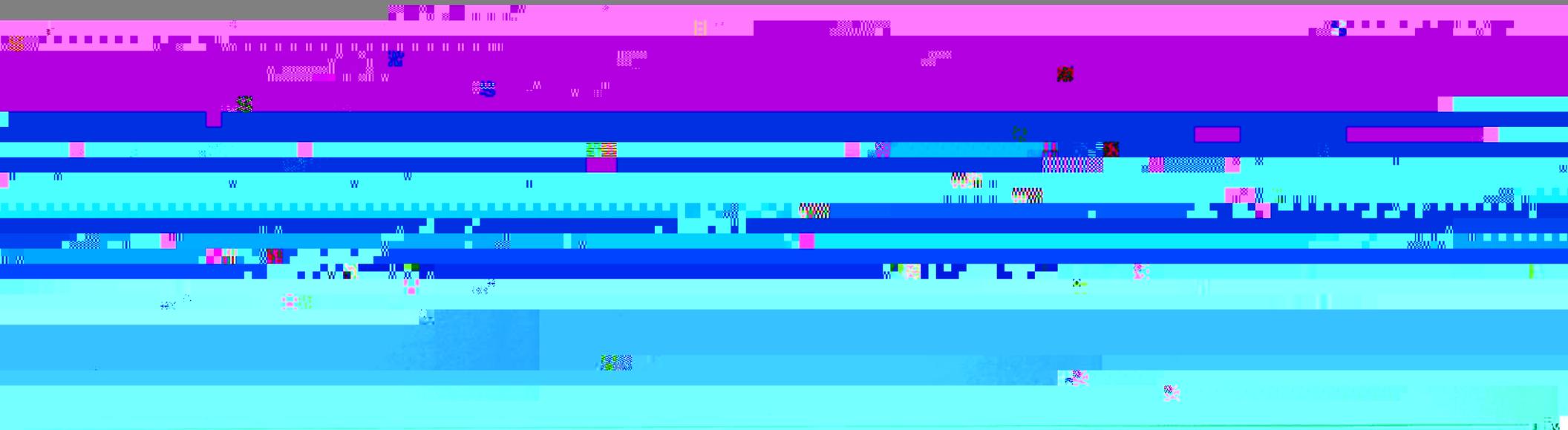
a) These energies were taken from the work of Spits et al.¹⁷.
The photopeaks at these energies were observed in the
gamma-ray spectrum from CCl_4 .

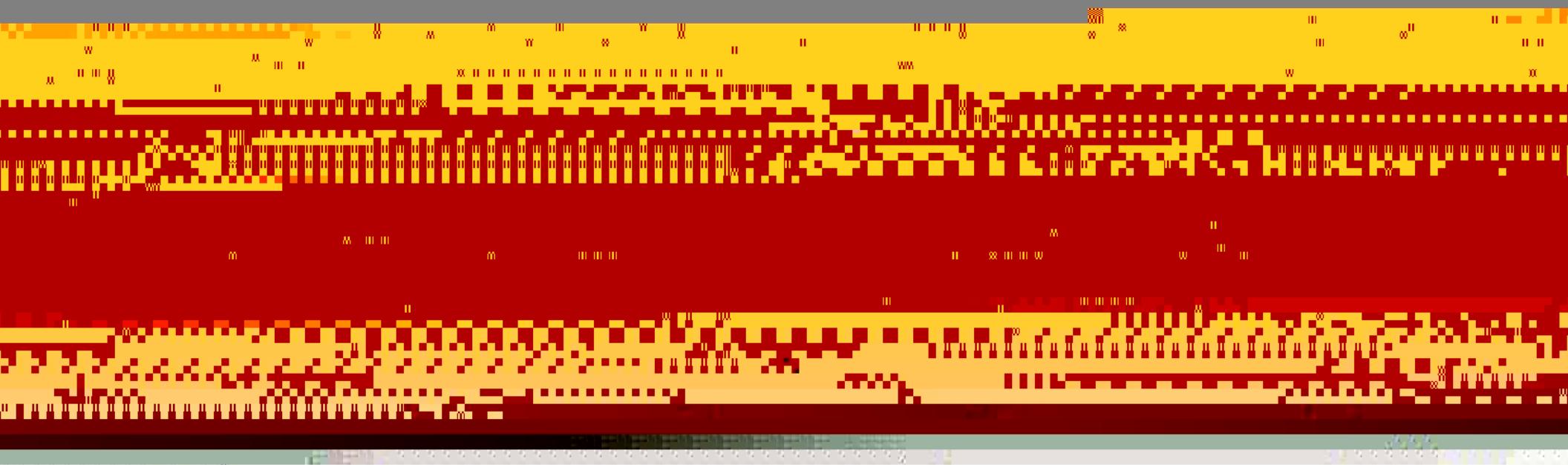
$P = 0.02$, $T = 0.00$

$P = 0.0001$, $T = 0.0001$











$$M_A + M_n = M_{A+1} + Q ,$$



Figure 17. The Decay Scheme for ^{200}Hg

35

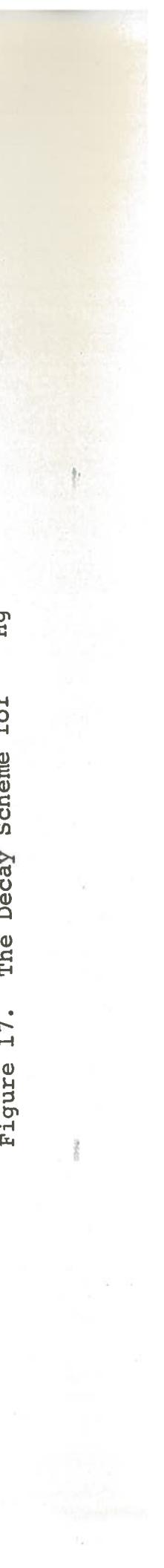


TABLE 8

CONTINUED



